

# THE TEACHER'S ANTIDOTE

Imani Maene

Honors Program

Indiana University Southeast

# What is an antidote?

(Merriam -Webster Online Dictionary)

- Antidote: “something that **relieves**, **prevents**, or **counteracts**”
- To relieve: “to **free** from a burden : give aid or help to”
- Prevent: “to keep from happening or **existing**”
- Counteract: “to make ineffective or restrain or **neutralize** the usually ill effects of by means of an opposite force, action, or influence”

# Speech Preview

**I will cover these points:**

- Traditional Learning vs. Active Learning
- Key components and arguments
- Evidence
- Anxiety and attention span
- Final thoughts



# Research Question

“Is active learning a more effective way to learn than traditional learning is?”

## Active Learning

- “Learning by doing”
  - Writing
  - Interactive technology
  - Building models
  - Group work

## Traditional Learning

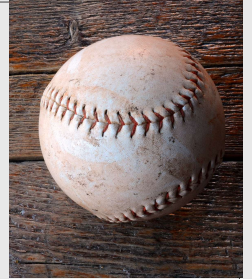
- Listening to a lecture
- Instructor is speaking
- Tests, quizzes, or assignments.



# Research Highlights One

Students learn differently.

- More represented students
  - Quick pace
- (Alexander, 2018).
- (Mazer, Hess, 2017).



- Minority, and first-generation
  - Cultural differences
- (Alexander, 2018).
- (Mazer, Hess, 2017).

## Research Highlights 2

- Active learning tends to result in better grades
  - “...average examination scores **improved** by about **6%** in active learning sections, and that students in classes with traditional lecturing were about **1.5** times more likely to fail than were students in **classes with active learning**,” (Alexander, 2018).
- Remembering better
- (Darnell and Krieg, 2019)

# Critics of Active Learning

## One

- Active and student anxiety.
  - (Bernstein 2018)
  - (Brigati, England, Schussler 2020)
  - (Mazer, Hess, 2017)
- Average instructor
  - (Alexander, 2018)
  - (Bernstein 2018)

Response from Active  
Learning Supporters

More Training

# Critics of Active Learning

## Two

- “losing control of the classroom”
- “lack of student participation”
- “student resistance”
- “large class size”
- “the need for additional preparation time (Bonwell and Eison 1991; Michael 2006).”
  - (Ismail and Groccia, 2018)
- (Bernstein 2018)

Active Learning  
Supporters Say

A Word of Caution

- (Alexander, 2018)
- (Bernstein 2018)



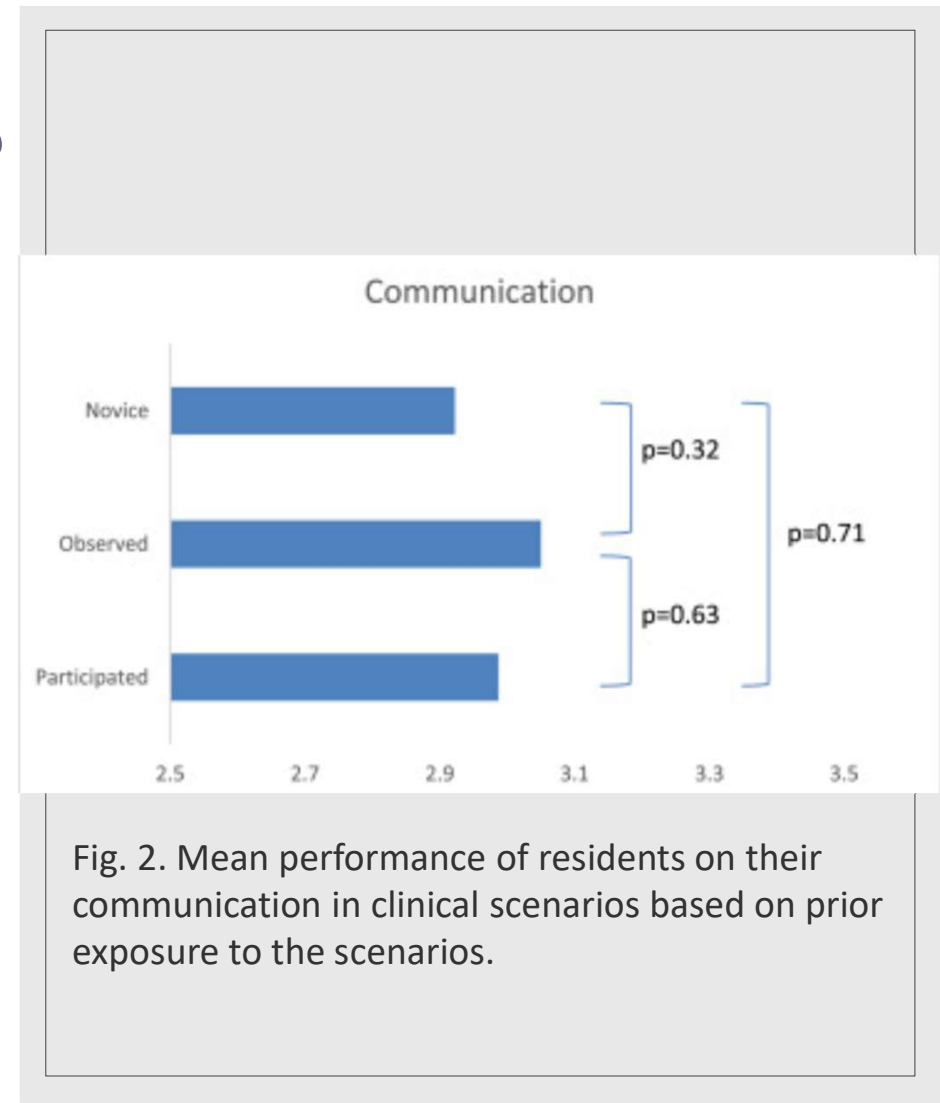
# Supporters of Lecturing One

- Teachers already combine both forms of learning.
- “Second, if the control condition really involves nothing but lectures, the value of an active learning method could easily be overestimated by teachers whose lectures **already** contain some interactive features.”
  - (Bernstein 2018)



# Supporters of Lecturing Two

- Lecturing has its proper place in learning.
  - Medical Studies and Debriefing
- (Ying, Yacob, Khambati, Seabrook, and Gerridzen 2020)



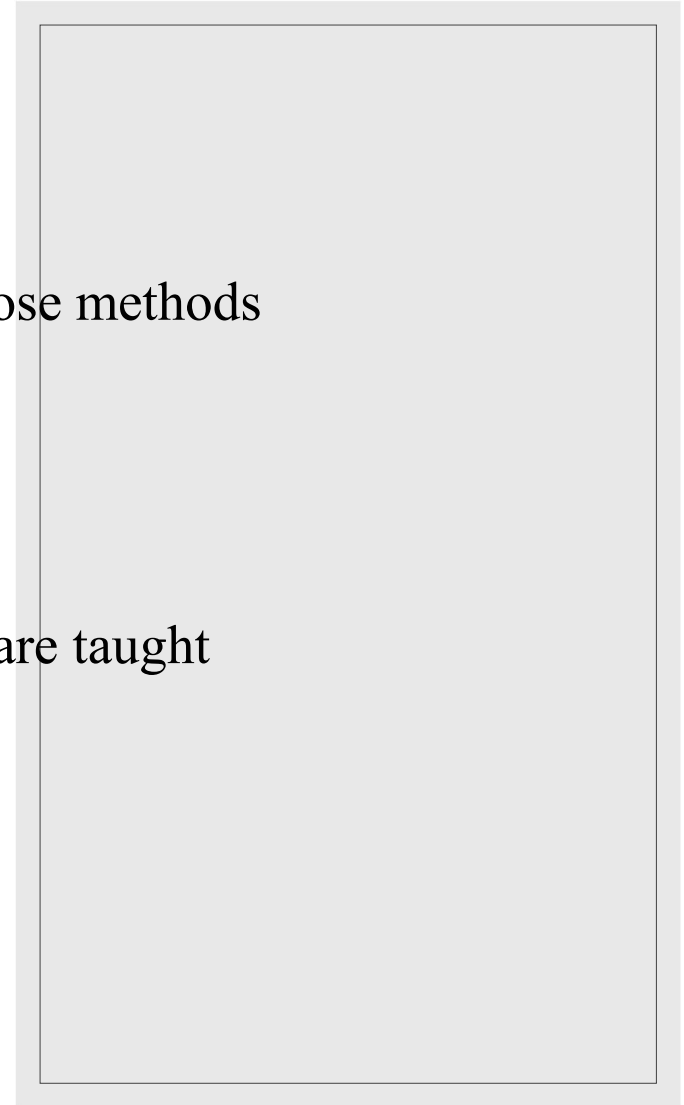
# Critics of Lecturing

- Economic
- Less skills
- Less Training
- More gets done
  - (Ying, Yacob, Khambati, Seabrook, and Gerridzen 2020)
  - (Lohr, Schultz-Pernice, Chernikova, Sailer, and Fischer, 2021).



# Conclusions 1

- the specific active learning methods used
- the amount of in-class and out-of-class time devoted to those methods
- the demographic and other characteristics of the teachers
- the demographic and other characteristics of the students
- the discipline being taught
- the educational settings and formats in which the courses are taught
- the nature of the dependent variables
- the research designs and methodologies involved.”
- (Bernstein 2018)
- (Brigati 2020)
- (Mazer, Hess 2017)



## SURVEY RESULTS

- Original Survey
- 22 responses
- 19 female respondents
- 18 respondents were Caucasian
- Most participants were from these majors:
  - Arts & Letters
  - Social Sciences
  - Education
- 52 % of respondents believe that some classes are better at lectures than others.
- 52% of students found that answering an instructor's question is moderately stressful.
- 47% of respondents found that explaining something to the class was moderately stressful.
- 23% of respondents found presenting to be severely stressful.

## Conclusions 2

- “Instructors should also be able to mix things up when student attention wanes by moving into well-structured activities, working alongside students, and moving them back into whole-class instruction if they become frustrated or distracted.”
  - (Mazer, Hess 2017)
- (Hopstaken 2015)



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